

REMARKS

The Examiner has restricted this application to one of the following inventions under 35 U.S.C. § 121 as follows:

- I. Group I - Claims 1-6, drawn to bacterial oligonucleotides having a molecular weight of less than 10kDa, classified in class 424, subclass 282.1.
- II. Group II - Claims 7-32, drawn to methods of simulating the immune system of an animal utilizing oligoribonucleotides having an amino acid less than 10kDa, classified in class 514, subclass 2.
- III. Group III - Claims 7-32, drawn to methods of suppressing the immune system of an animal utilizing oligoribonucleotides having an amino acid less than 10kDa, classified in class 514, subclass 2.

The Examiner states the basis cited for the restriction is that the inventions can be shown to be distinct because "[i]n the instant case the oligoribonucleotides of Invention I can be used to produce antibodies". This restriction requirement is respectfully traversed. Reconsideration and removal of the restriction requirement is respectfully requested based on the following reasons.

Applicant asserts that the methods and compositions of claims 1-32 are all related by the claimed oligoribonucleotides (ORNs) having a molecular weight less than 10kDa, and as such do not require separate searches. Applicant asserts that the Examiner's statement, stated *supra*, is incorrect in regards to the present invention as the present invention does not teach nor suggest that the oligoribonucleotides can or will be used to produce antibodies.

An antibody can be defined by one of ordinary skill in the art as "any of a large number of proteins of high molecular weight that are produced normally by specialized B cells after stimulation by an antigen and act specifically against the antigen in an immune response and that typically consist of four subunits including two heavy chains and two light chains" (*see Merriam-Webster Online at www.m-w.com/dictionary/antibodies*). In contrast, the present invention teaches that oligoribonucleotides (ORN) <10kDa are produced by the destruction of ribosomal RNA, which occurs concomitantly with the slowing of bacterial growth. When encountering normal and naturally-occurring stresses such as those described in the specification, bacteria release the claimed oligoribonucleotides wherein the claimed composition modulates and

stimulates the immune system (*see* specification, pp. 13-14). In addition, the appearance of ORN can be followed by monitoring absorbencies in the ultraviolet, preferably at 254 nm (*see* specification, p.17). Applicant asserts that the recitation of UV absorption at 254 nm disclosed in the originally filed specification would be understood by those ordinarily skilled in the art that this peak absorption automatically *excludes* oligoribonucleotides from the possibility of being proteins or peptides. Those ordinarily skilled in the art would recognize that proteins absorb UV with a peak of 270-272 nm, *not* 254 nm.

The Applicant further traverses the classification of Invention III, claims 7-32, drawn to methods of suppressing the immune system of an animal utilizing oligoribonucleotides having an amino acid less than 10kDa, classified in class 514, subclass 2. Class 514, subclass 2 is related to subject matter which contains a protein or its reaction product, e.g. peptides, peptones, fibrinogen etc. Applicant asserts that the present invention does not contain a "protein or its reaction product" for the reasons discussed *supra* and therefore requests this designation be reconsidered.

Provisional Election

If the restriction requirement is not withdrawn after reconsideration, the Applicant provisionally elects, **with traverse**, Group I, claims 1-6, drawn to bacterial oligonucleotides having a molecular weight of less than 10KDa, classified in class 424, subclass 282.1, without prejudice to pursuit of the Group II or Group III claims or additional claims in a related application. Claims 7-32 have been withdrawn.

Conclusion

No fees or extensions of time are believed to be due in connection with this amendment; however, consider this a request for any extension inadvertently omitted, and charge any additional fees to Deposit Account No. 26-0084.

Respectfully submitted,



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